DOCUMENT RESUME

ED 227 688 FL 013 553

AUTHOR Roby, Wallace
TITLE 1981-82 Project Evaluation for Encendiendo Una Llama: A Program for Bilingual Gifted and Talented Students.
INSTITUTION Hartford Public Schools, Conn.
PUB DATE Dec 82
NOTE 28p.; For related document, see ED 196 197.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; *Bilingual Education Programs; *Bilingual Students; Elementary Education; *Gifted; *Hispanic Americans; Language Skills; Limited English Speaking; *Program Evaluation; Talent; Teaching Methods
IDENTIFIERS Connecticut (Hartford)

ABSTRACT

The operation of "Encendiendo Una Llama," Hartford, Connecticut's program for bilingual gifted students, was evaluated for the 1981-82 school year. A total of 173 gifted children of limited English proficiency in grades 3 through 6 were served by the program at four locations. The program, staff, objectives, and target population are described. Program goals were to develop English and Spanish language skills, higher level thinking skills, and creativity. Results are reported on accuracy of student identification, staff training, implementation of differential instructional strategies, student achievement, progress in independent work and study skills, progress of students talented in the arts, mainstreaming of English proficient students, parent involvement, and dissemination. The evaluation yielded evidence of student progress in reading, math, and oral language skills in both Spanish and English. Based on the findings, recommendations are made regarding evaluation methods, inservice teacher training, development of teaching units and techniques that correspond to program goals, and an expanded role for the parent coordinator. (RW)

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1981-82 PROJECT EVALUATION FOR ENCENDIENDO UNA LLAMA

A Program for Bilingual Gifted and Talented Students

Hartford Public Schools
249 High Street
Hartford, Connecticut

Superintendent of Schools: Hernan LaFontaine

Project Director: Daniel Barstow

Project Evaluator: Wallace Roby

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COURANT PHOTO BY JOHN LONG

Francisco Cabea, 11, left, and Sammy Medina, 11, learn to operate a computer in a program for gifted pupils at the Ann Street School. The program, *Encendiendo Una Llama*, or Lighting a Flame, is financed by a federal grant.

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1981-82 PROJECT EVALUATION FOR ENCENDIENDO UNA LLAMA

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1981-82 ANNUAL PROJECT EVALUATION REPORT

for

ENCENDIENDO UNA LLAMA

A Program for Bilingual Gifted and Talented Students

funded by the

Federal Title VII Bilingual Education Office

Superintendent of Hartford Public Schools

Hernan LaFontaine

Project Director:

Daniel Barstow

Project Evaluator

Wallace Roby

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249 High Street
Hartford, Connecticut

December 1982

ANNUAL EVALUATION REPORT FOR ENCENDIENDO UNA LLAMA

1981-82

Introduction

1981-82 represented the third year of operation of Encendiendo Una Llama, Hartford's program for bilingual gifted and talented students. The term bilingual gifted and talented is defined as children limited in English proficiency who have extraordinary learning ability or outstanding talent in the creative arts. A total of 173 of these children of grades 3 through 6 were provided programs at four Hartford school settings during the 1981-82 school year.

The program was started at the Ann Street Bilingual School during the second half of the 1979-80 year. After one and one-half years of operation at Ann Street, satellite programs were established at three other schools...Barnard Brown, Burns, and Kinsella. Full-time resource teachers staffed the programs at three of the four schools thereby making it possible to offer programs during the school day as well as after school. Additional part-time staff were used in the program taking place during after school hours.

The initial 1981-82 program emphases at all of the settings was the development of bilingual identification procedures, identification of target students, and the assessment of their educational needs. Hartford teachers, administrators, and parents contributed to the program design. Program services were offered to teachers and parents as well as students. The staff were bilingual, and program services were available in both English and Spanish.

The Program and Staff

The Ann Street Bilingual School served as the administrative and instructional center for Encendiendo Una Llama during the 1981-82 school year. The resource room in this school contained a wide variety of educational materials specially purchased to service the needs of students, teachers, and parents. A Project Director and a Resource Teacher/Counselor were based at the Ann Street location and provided instruction to students during the day and through an after school program. These two persons also provided the central coordination for the satellite bilingual gifted and talented resource centers set up in other schools, and provided the staff training.

Both Burns and Kinsella schools had full-time resource teachers who implemented a wide range of gifted and talented services to students and parents during the day and during after school hours. These teachers were selected by the Principal and the Project Director. They were bilingual and experienced teachers. Besides their teaching responsibilities, these teachers established gifted and talented resource rooms in each of their schools. In addition to the materials they selected to be most appropriate for their students, teachers, and parents, they also had the opportunity to obtain educational materials from the central resource room on a loan basis.

Identification of students began with teacher referrals followed by the administration of several tests, and the collection of additional subjective information about each child. Special education procedures were used culminating in a Pupil Appraisal Team (PAT) meeting. The PAT group made up of parents, classroom teachers, resource teachers, and others made student selection decisions and planned each child's individualized educational program.

During the day program, students participated in a variety of activities in the resource room usually on a small group basis. Activities were undertaken which included cooperative planning, advanced thinking skills, challenging problem solving, creative expression, and language development. Small group instructional units were designed, independent projects developed, visitors and consultants were brought in, and field trips to community resource centers were taken. The resource teachers also became involved in schoolwide activities which had potential for talent to surface, such as, a school science fair or a school newspaper.

The after school program provided additional instructional activities for students who could participate during these hours. The after school program had a staff of four teachers hired to teach part-time. Up to six to ten students were grouped on the basis of common linguistic and academic abilities for after school activities so they could participate in instructional units based on their interests and abilities. Teachers focused on a variety of topics which included research skills, community resources, report writing, math problem solving, and visual and performing arts.

Besides the day program and the after school program, Encendiendo Una Llama also emphasized special activities for bilingual gifted and talented students in their regular classrooms. Activities were specified in the individualized educational program drawn up for each student. Some classroom teacher training opportunities were offered recommending how classroom teachers could provide such things as: advanced instructional materials, opportunities for these students to proceed at an excelerated rate, additional supportive materials, and provision for doing independent projects. A variety of educational materials were made available to classroom teachers on a loan basis, and guidance in working with the gifted and talented was available to individual teachers from project resource teachers.

Staff training was also an integral part of the 1981-82 Encendiendo Una Llama program. Newly hired resource teachers participated in a series of intensive training sessions aimed at project orientation, characteristics of the target population, identification procedures, and linguistic and cultural factors. Part-time teachers were involved in three weeks of intensive training and orientation during after school hours, but before the programs began. These training activities were focused on assessing student needs, designing and developing curriculum units, and techniques of implementing the units with students.

Parent participation in the program began with their involvement in the PAT identification process. Over the course of the program year, specific activities were conducted to: inform parents about the program; to help them understand the characteristics of gifted and talented children; and suggest

ways parents could provide appropriate supportive educational opportunities in the home and in the community. Many parents had special abilities of their own which they shared with students in the program. Parents were also part of the project Advisory Committee which helped develop and guide program operation.

Project Objectives

The major intents of Encendiendo Una Llama during the 1981-82 project year were as follows:

1. Students qualified for the program will be selected using bilingual identification instruments and procedures appropriate for the target population.

2. As a result of staff training, participating regular classroom teachers will be able to identify gifted and talented children among their Hispanic and non-Hispanic students.

3. As a result of staff training, participating regular classroom teachers will implement differentiated instructional strategies in the regular classroom to better meet the needs of their identified gifted and talented students.

4. As a result of staff training, resource teachers and teachers in the after school program will select, modify, design and implement differentiated instructional strategies and curriculum units appropriate for their students in the gifted and talented program.

5. Participating students will improve their English reading and math skills as measured by the Metropolitan Achievement Tests.

6. Participating students will improve their Spanish reading and math skills as measured by the Comprehensive Test of Basic Skills/Español.

7. Participating students will improve their English oral skills as measured by the Language Assessment Scales - English.

8. Participating students will improve their Spanish oral skills as measured by the Language Assessment Scales - Spanish.

9. Students selected on the basis of their academic abilities will demonstrate improved independent work and study skills as demonstrated by the quality of the projects they develop in the resource room and/or after school program.

10. Students selected on the basis of their talent in art will demonstrate improved abilities in their area of talent as demonstrated by the quality of their artistic expression.

11. Participating Hispanic students who acquire sufficient oral English skills as measured by the Language Assessment Scales and sufficient English reading skills as measured by the Metropolitan Achievement Tests will be transferred to appropriate monolingual gifted and talented programs.

12. As a result of participation in the parent education/involvement component, parents of participating gifted and talented students will provide supportive educational opportunities at home and/or utilize community resources to support their child's educational development.

Target Population

Hispanics make up the largest group of children who are limited in English language proficiency in Hartford schools. Based on a 1980 report to the Office of Civil Rights, there were 6,677 limited English proficient children attending Hartford Public Schools. Of this number, 6,011 were Hispanic. Encendiendo Una Llama staff estimate that there are 667 gifted and talented limited English proficient children among this population.

The project serviced 173 grade 3-6 bilingual gifted and talented students during the 1981-82 school year. A breakdown by grade levels of serviced students by schools follows.

Grade Level Breakdown

	Gr 3	Gr 4	Gr 5	Gr 6	Total
Ann Street Bilingual	12	12	5	6	35
Barnard Brown	2	2	9	16	29
Burns	10	18	15	13	56
Kinsella	6	5	13	13	37
St. Peter	4	5	1	6	16
Combined schools	34	42	43	54	173

The ethnic background of the children serviced was 83 percent Hispanic, 6 percent Black, 5 percent Anglo, 3 percent Portuguese, 1 percent French, 1/2 percent Cambodian, 1/2 percent Columbian, and 1 percent unknown. The figures by school are as follows.

Ethnic Background

	Hispanic	Black	Anglo	Portuguese	Other
Ann Street Bilingual	35				
Barnard Brown	24	5			
Burns:	41	1	5	5	2 French 1 Cambodian 1 Colombian

	Hispanic	Black	Anglo	Portuguese	Other
Kinsella	29	5	3		
St. Peter	14				2 unknown
Combined Schools:	143	11	8	5	2 French 1 Cambodian 1 Colombian 2 Unknown

A total of 68 percent of the students serviced by the project spoke Spanish as their dominant language. Twenty-eight percent more were English dominant while 4 percent were bilingual. Fifty-nine of the students enrolled in the project were not classified in terms of language dominance. The figures for language dominance follow.

Language Dominance

	Gr 3	Gr 4	Gr 5	Gr 6	Total
Spanish dominant	17	19	18	23	77
English dominant	6	5	8	13	32
Bilingual			2	3	5
Not categorized	11	18	15	15	59

Figures tallied for the main language spoken in the home showed 76 percent Spanish-speaking, 20 percent English, 1/2 percent Cambodian, 1/2 percent Columbian, and 2 percent with the home language unknown. The figures follow.

Home Language

	Spanish	Portuguese	English	Other
Ann Street Bilingual	32		2	1 unknown
Barnard Brown	21		8	
Burns:	40	5	8	1 unknown 1 Cambodian 1 Colombian
Kinsella	25		12	
St. Peter	10		4	2 unknown
Combined Schools:	128	5	34	1 Cambodian 1 Colombian 4 unknown

A total of 63 percent of all serviced students were enrolled in bilingual programs in their schools, either full-time or part-time. The figures by school follow.

Students from Bilingual Programs

	From Bilingual Programs	Total Project Students
Ann Street Bilingual	35	35
Barnard Brown	9	29
Burns	51	56
Kinsella	14	37
St. Peter		16
Combined Schools	109	173

Product Evaluation

The remaining portion of this report presents the evidence collected in terms of project objectives for the 1981-82 bilingual gifted and talented program.

Accuracy of student identification

The success of the student identification process depended upon the accuracy and appropriateness of the bilingual education instruments and procedures developed for the project. Yearend student evaluations made by resource teachers, which included discussions with classroom teachers and completion of the yearend section of the individualized educational program for each student, were the means used to determine the appropriateness of the selections made.

The success of the student identification process also depended partly on initial teacher referrals. Prior to program requests for referrals, classroom teacher training was offered which included an overview of the Encendiendo Una Llama identification process, a discussion of the characteristics of gifted and talented children, and an orientation on some of the cultural and linguistic factors affecting target students.

The expectation set by project staff was that 80 percent of the students identified for the program would be selected correctly. Of the 173 students identified for the 1981-82 program, only 15 students were judged by resource teachers as not successful in the program or incorrectly identified. Hence, the 1981-82 project identification was 91 percent accurate which means that the expected outcome for the first and second objective of the project was achieved.

Accomplishments of staff training and implementation of differentiated instructional strategies

The project application anticipated the need for training of classroom teachers, full-time resource teachers, and after school program teachers if the project was to be successful.

Prior to requests for referrals, classroom teachers were offered the opportunity to participate (with pay) in a series of after school training sessions designed to introduce the bilingual gifted program, help the teachers identify students, and to provide ideas for activities to take place in the regular classroom. The turnout for this approach to training was small which prompted staff to resort to individual contacts with classroom teachers to inform them about characteristics to consider in referring children for the program. Concerning another need, the availability of a variety of educational materials from the gifted and talented resource rooms was widely utilized by classroom teachers which helped increase the introduction of additional activities for bilingual gifted and talented students in their regular classrooms.

Two full-time resource teachers met regularly with the Project Director for initial staff training. These two teachers were new to their positions in the program at the start of the 1981-82 school year. Throughout the year, there were scheduled group training activities and ad hoc individualized training. Topics included identification and characteristics of the gifted, instructional activities appropriate for the gifted, dealing with disadvantaged and limited English proficient gifted children, and development of specific academic and artistic skills in the children. Training in the use of computers was also provided.

The teachers in the after school program participated in one afternoon of training each week during the course of the after school program. Every Friday, the after school session was dedicated to developing instructional skills, understanding the students better, developing specific academic or art units, and other topics as the need arose.

One other staff training option was the opportunity for project involved teachers to participate in a two-week training session at the University of Connecticut designed to provide in-depth, advanced training for teachers of the gifted. Six Encendiendo Una Llama teachers participated.

Besides the listing of the staff training activities described above, the project evaluator interviewed nine project staff persons at yearend to assess staff abilities to develop and implement differentiated instructional strategies and curriculum units. Differentiated instructional strategies was defined as language development, enrichment activities, and independent projects. Two of the three full-time resource teachers were available at yearend and were interviewed while the remaining seven interviews were from part-time project teachers. Interviews were also intended for a 20 percent sample of involved classroom teachers, but these interviews were never scheduled due to the late start of the evaluator near the closing of school.

The Project Director singled out four of the program's differentiated instructional strategies to be the target of 1981-82 interview evaluations. Elaborating beyond the definition for instructional strategies presented above, the curriculum practices were to include:

- enhancing the students' language development in English and Spanish

- increasing the students' knowledge and experiential background through enrichment activities
- stimulating and developing the students' creative abilities
- encouraging students to pursue personal interests and carry out independent projects
- developing curriculum units based on a topic or theme, emphasizing student involvement, and leading toward specific products.

The evaluation plan called for the use of a focused interview of teachers by the project evaluator to determine the extent that project staff had incorporated the listed instructional strategies in their program planning and teaching. The focused interview technique selected was that described in the Concerns-Based Adoption Model (CBAM)[1] for determining the levels of use of specified curriculum practices by school staff. The "Levels of Use" dimension of this evaluation technique allowed the trained interviewer to identify the stage at which a user of specified curriculum practices was on a developmental growth continuum. The expectation was that all of the resource teachers and 80 percent of the after school staff interviewed would be found at Level III or higher on the LoU Scale. Level III is a stage of use in which the user focuses most effort on the short-term, day-to-day use of the curriculum practices with little time for reflection. Changes in use are made more to meet user needs rather than student needs at this stage of development.

The two resource teachers who could be interviewed were found exceeding the Level III stage of use expected. One could be described as using the instructional strategies smoothly with minimal management problems while the other more specifically was found exploring and experimenting with alternative combinations of the curriculum practices to maximize student involvement and optimize student outcomes.

Only two of the seven after school program teachers interviewed were found at a stage of development in using the instructional strategies below the Level III stage expected. It should also be mentioned that both of these staff persons had less than two months of teaching time in the program prior to the time of the interviews. Of the remaining five teachers, two were found using the designated instructional strategies at the level expected while the other three exceeded the standard set in the program application.

Relevant to the development of curriculum units, project staff offered more than 25 teaching/learning units for students to choose from during the 1981-82 school year. Some of the unit descriptions were just the beginnings of outlines while others were more completely developed, including unit objectives, activity options, and suggested products. A listing of major curriculum units offered included:

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[1] Susan F. Loucks, Beulah W. Newlove and Gene E. Hall, Measuring Levels of Use of the Innovation (Austin, Texas: R&D Center for Teacher Education, University of Texas, 1975).

English poetry
Spanish poetry
Spanish language games
Creative writing & reading enrichment
Creative writing
Independent reading
Maps
Small world
Community history
History of Ann Street School
Art
Music

Calculators and computation
Problem solving - math
Math enrichment
Money museum
Word problems using a calculator
Computers
Introduction to computers
Science toys
Terrariums
Parts of the body
Dinosaurs
Going behind the scenes
Newspaper

Summarizing results in terms of program objectives 3 and 4, staff training was offered to classroom teachers, resource teachers, and to part-time after school program staff. Expectations in terms of incorporating designated instructional strategies in program teaching were met by resource teachers, but were not met in terms of the expectations for after school program staff. Only 71 percent of the after school program staff incorporated the designated strategies. The expected outcome was that 80 percent would accomplish this goal. It was pointed out that the lower rate of accomplishment came about as a result of two new staff persons who had begun teaching in after school programs late in the school year. The extent that classroom teachers incorporated differential instructional strategies for the gifted and talented in their classrooms was not ascertained in the 1981-82 program evaluation.

Student achievement results

Achievement results for public school Encendiendo Una Llama students were in terms of English reading and math, Spanish reading and math, and in English and Spanish oral language proficiency. Results in terms of English reading and math were the only test information available for program students from St. Peter Elementary School.

Achievement tests results are presented in tables following these introductory remarks about the specifics of the testing. The first group of tables present achievement gains for public school project students from spring 1981 testing through spring 1982 testing.

The second group of tables presents spring 1982 attainment levels for project students compared to "other Hispanics" taking the tests in Hartford schools. In the case of Metropolitan Achievement Tests results, "other Hispanics" represented all Hispanics in regular classrooms of Hartford schools administered citywide testing and whose spring 1981 and spring 1982 test scores were available from the Hartford Public Schools Office of Evaluation, Research & Testing at the close of the 1981-82 school year. In the case of CTBS Español results, "other Hispanics" represented all Hispanics in bilingual programs in Hartford schools who were administered this test in the spring of 1982.

The Metropolitan test scores for regular classroom Hispanics is only a 5 percent sample of the Hispanics enrolled in grade 3-6 classrooms of Hartford. Hence, no claim for representativeness of all regular classroom Hispanics can be made for this small, nonrandomly selected group of test scores for Hispanic students.

The CTBS Español test scores for Hispanics in Hartford school bilingual programs represented all of the scores of tests administered to these students reported by the Hartford Public Schools Office of Evaluation, Research & Testing for the 1981-82 school year. Scores reported for these students would be representative of all Hartford school Hispanic bilingual program students of grades 3-6.

The third group of test score tables indicate the reading and math progress in both English and Spanish, and the English and Spanish oral language progress for students in the 1980-81 school year program compared to those in the 1981-82 school year. It should be recognized that this comparison is for two different groups of students...not the same students for two consecutive years. In the case of oral language progress, test scores represent project students from the Ann Street Bilingual feeder school only.

The last table of test scores shows the national percentile standing for St. Peter project students based on May 1981 and June 1982 Stamford Achievement Tests scores in Total Reading and Total Math, administered by the staff in that school, and reported out in the school's individual student record file.

1981-82 Project Student Test Results

Metropolitan Achievement Tests

	Reading				Mathematics			
Grade	N	Spg 81 %ile	Spg 82 %ile	r	N	Spg 81 %ile	Spg 82 %ile	r
Gr 3	22	37.5	45.1	.78	22	67.2	56.5	.77
Gr 4	24	38.5	46.9	.76	24	57.8	59.7	.53
Gr 5	22	37	34.5	.89	22	50	64.7	.81
Gr 6	33	36.6	59.7	.84	33	49.4	69.5	.78
	Gain Across Grade Levels: 5.7 NCEs				Gain Across Grade Levels: 4.3 NCEs			

CTBS Español

Grade	Total Reading N	Spg 81 %ile	Spg 82 %ile	r	Total Math N	Spg 81 %ile	Spg 82 %ile	r
Gr 3	15	51.8	42.4	.72	15	61.4	45.1	.60
Gr 4	13	36.2	61	.73	13	51.9	52	.83
Gr 5	9	37.8	39.8	.67	9	31.7	44.6	.68
Gr 6	18	47.7	45	.73	18	51.9	59.8	.81
	Gain Across Grade Levels: 1.5 NCEs				Gain Across Grade Levels: 0.2 NCEs			

Language Assessment Scales

Grade	English N	Spg 81 %ile	Spg 82 %ile	r	t value	Spanish N	Spg 81 %ile	Spg 82 %ile	r	t value
Gr 3	11	66.4	86.6	.75	3.269*	11	87.4	94.4	.36	2.845*
Gr 4	11	91.1	95	.19	1.625	11	93.5	93.6	.36	0.046
Gr 5	5	89.2	85	.36	1.026	5	94.4	92.6	.78	0.985
Gr 6	5	95.6	94.8	.76	0.334	5	96.4	95.2	.73	0.688

*Significant beyond .01 level

1981-82 Project Student Test Results Compared to Other Hispanics

Metropolitan Achievement Tests, Spring 1982

Grade	Reading Llama N	Llama %ile	Hispanic Sample N	Hispanic Sample %ile	Mathematics Llama N	Llama %ile	Hispanic Sample N	Hispanic Sample %ile
Gr 3	22	45			22	57		
Gr 4	24	47	5	14	24	60	5	30
Gr 5	22	35	47	11	22	65	47	16
Gr 6	33	60	31	22	33	70	31	24

CTBS Espanol, Spring 1982

Grade	Total Reading: Llama N	Total Reading: Llama %ile	Total Reading: Citywide Bilingual N	Total Reading: Citywide Bilingual %ile	Total Math: Llama N	Total Math: Llama %ile	Total Math: Citywide Bilingual N	Total Math: Citywide Bilingual %ile
Gr 3	15	42	317	31	15	45	316	34
Gr 4	13	61	276	36	13	52	273	41
Gr 5	9	40	223	25	9	45	221	32
Gr 6	18	45	162	29	18	60	161	29

Two Consecutive Years of Project Student Test Results

MAT: Reading (English reading)

Grade	N	Spg 80 %ile	Spg 81 %ile	N	Spg 81 %ile	Spg 82 %ile
Gr 2	3	38	43			
Gr 3	7	15	44	22	38	45
Gr 4	7	20	21	24	39	47
Gr 5	10	43	50	22	37	35
Gr 6	6	41	66	33	37	60
	Gain Across Grade Levels: 9.1 NCEs			Gain Across Grade Levels: 5.7 NCEs		

CTBS Español, Total Reading (Spanish reading)

Grade	N	Spg 80 %ile	Spg 81 %ile	N	Spg 81 %ile	Spg 82 %ile
Gr 2	2	45	61			
Gr 3	9	62	54	15	52	42
Gr 4	5	18	30	13	36	61
Gr 5	4	40	42	9	38	40
Gr 6	4	48	45	18	48	45
	Gain Across Grade Levels: 0.3 NCEs			Gain Across Grade Levels: 1.5 NCEs		

LAS: English (English oral language proficiency)

	Spg 80	Spg 81	Spg 81	Spg 82
Number tested	32	32	32	32
Mean total score	76.7	88.7	83	92
Standard deviation	24.7	12.6	21.8	7.1
Pre-post r	.69		.6C	
t value	3.674 ($p < .01$)		2.759 ($p < .01$)	

LAS: Spanish (Spanish oral language proficiency)

	Spg 80	Spg 81	Spg 81	Spg 82
Number tested	33	33	32	32
Mean total score	86.7	92	90.7	94
Standard deviation	14.6	7.7	11.3	5.7
Pre-post r	.59		.48	
t value	2.559 ($p < .01$)		1.847 ($p < .05$)	

1981-82 Test Results for St. Peter Project Students

Stanford Achievement Results (Individual Scores)

	Total Reading		Total Math	
Grade	May 1981 %ile	June 1982 %ile	May 1981 %ile	June 1982 %ile
3	-	62	-	40
3	-	84	-	82
3	-	44	-	30
3	-	40	-	64
4	70	76	80	66
4	77	78	82	82
4	36	24	66	48
4	-	72	-	58
5	-	88	-	68
6	32	34	14	58
6	62	44	26	36
6	↖	36	-	26
6	84	90	96	96
Median %ile		62		58

English reading test scores showed bilingual gifted and talented students increasing in national percentiles at grades 3, 4 and 6 and decreasing in percentiles at grade 5 when spring 1981 scores were compared to those of spring 1982. Across grade levels, these students showed more than a quarter of a standard deviation (5.7 NCEs) average gain from spring 1981 to spring 1982 testing.

Project student English reading attainment in the spring of 1982 was higher at each grade level where comparisons could be made than the attainment for a small nonrepresentative sample of Hispanics in Hartford regular classroom.

Project student test scores in English reading were higher in grades 3 and 4 and lower in grades 5 and 6 in 1981-82 than in the previous school year. Across grade levels, 1980-81 project students showed greater English reading progress (9.1 NCEs) than 1981-82 project students (5.7 NCEs).

Math scores, based on an English language test administration, showed bilingual gifted and talented students increasing in national percentiles at grades 4, 5 and 6 and decreasing at grade 3. Across grade levels, these students achieved a fifth of a standard deviation (4.3 NCEs) average gain from spring 1981 to spring 1982 testing. It is worth noting that all of the grade groupings exceeded grade level achievement on the average at the close of the 1981-82 school year.

Project student math attainment in the spring of 1982 was higher at each grade level than the attainment levels reached by a small, nonrandomly selected sample of Hispanics in Hartford regular classrooms.

Spanish reading test scores showed bilingual gifted and talented students increasing in national percentiles at grades 4 and 5 and decreasing in grades 3 and 6 when spring 1981 scores were compared to those of spring 1982. Across grade levels, these students for all practical purposes kept pace with the national norm group (no percentile gain) achieving a 1.5 NCE gain over the period of the 1981-82 school year.

Project student Spanish reading attainment in the spring of 1982 was higher at each grade level than the attainment for all Hartford school bilingual program students.

Project student test scores in Spanish reading were higher in grade 4, the same in grade 6 and lower at grade levels 3 and 5 in 1981-82 than in the previous school year. Across grade levels, 1980-81 and 1981-82 project students showed about the same progress (0.3 NCEs and 1.5 NCEs respectively) in Spanish reading, approximately equaling national norm group progress.

Math scores, based on a Spanish language test administration, increased in national percentiles at grades 5 and 6, remained unchanged at grade 4 and decreased in national percentiles at grade 3 over the period from spring 1981 to spring 1982. Across grade levels, bilingual gifted and talented students just kept pace with national norm group students, achieving a negligible 0.2 NCE gain.

Math attainment in Spanish in the spring of 1982 was higher at each grade level than the Spanish math attainment for all Hartford school bilingual program students.

Oral English language proficiency scores showed bilingual gifted and talented students making statistically significant gains at grade 3, but not at grades 4, 5, and 6. Spring 1981 and spring 1982 scores for the instrument were too near the ceiling of the test instrument for students to show their full potential in this testing.

Comparing 1980-81 oral English language scores of project students with those of students in the 1981-82 program, one finds 1982 attainment levels and significance of gains made approximately the same both years.

Spanish oral language proficiency did not change significantly for project students over the 1981-82 school year except at grade 3 where students made statistically significant gains. Again, students at grades 4, 5 and 6 not showing significant advancement were scoring very near the ceiling of the test instrument. Hence, their full potential in this skill area was limited by the test instrument administered.

Comparing 1980-81 oral Spanish language scores with those of students in the 1981-82 project, one finds the attainment levels about the same both years; however, the significance of the overall gain made in 1980-81 was greater than the significance of gain reported for 1981-82.

The May 1981 to June 1982 Stanford Achievement Tests scores for the small sample of St. Peter project students (46% of all St. Peter project students) generally indicate students progressing in reading and math at a rate commensurate to that of the national norm group. National percentiles increased for two students, remained about the same for two others, and decreased for the remaining two students. Viewing the results in terms of June 1982 attainment, project students (88% of all project students) achieved above grade in both reading and math.

Summarizing test information in terms of program objectives 5-8, one finds improved national percentile standings for bilingual gifted and talented students in English reading (except for grade 5 students) and in math administered in the English language (except for grade 3 students). Spanish reading and Spanish math progress was approximately at the rate of the national norm group which represents maintaining percentile standings rather than showing increases. The testing in English and Spanish oral language skills cannot fairly present the full potential of project students as students scored too near the ceiling of the test in three of the four grade level groupings. Grade 3 project students, the only grade level grouping which did not hit the ceiling of the test instrument, made statistically significant gains in both English and Spanish oral language.

It can therefore be concluded that students generally achieved the objective of percentile improvement in English reading and English math; did not generally achieve the objective in Spanish reading and math (but did maintain national norm group progress); and achieved the objective in

English and Spanish oral language skills at the only grade level where results could be measured accurately.

St. Peter project students who had different testing than the public school project students generally progressed in reading and math at the same rate as the national norm group, maintaining their percentile standings rather than increasing them. In both reading and math, these students on the average attained skill levels above grade.

Progress in independent work and study skills

One of the major objectives dealt with developing independent work and study skills. This is an area that is especially important for gifted and talented children. Throughout the year, the teachers emphasized activities which involved students in academic research and investigation. Examples were: written reports, science experiments, and independent reading. A form for the evaluation of these activities was developed by the project, and a set of base-line evaluations was completed. The evaluation form deals with such aspects of student work as student planning, use of resources, and problem solving skills.

Another aspect of this objective dealt with developing appropriate study skills. Staff in one school especially emphasized this aspect by directly teaching such topics as how to take notes, how to use reference books, and how to effectively study at home. This work was reinforced by appropriate homework assignments. Parent involvement was especially important, because many of the parents needed some guidance in setting up an environment conducive for their children to do school work at home (e.g. quiet place to study, T.V. turned off, and limited interruptions while the child was working).

Five of the product assessments made by project staff of student independent projects have been summarized below to give some idea of the variety of work selected by students and to show the follow-up evaluation provided for student individual endeavors.

Partial Assessment Information Recorded for Student Products

Student Product Assessment (Example #1)

Student name: Francisco Caban Grade: 6 School: Ann Street
Teacher: Gordenstein Date:
Product title and/or brief description: Study and slide presentation of whales
Number of weeks student worked on product: 9
Product ratings by teacher: (3 = better than average, 2 = average, 1 = below average)

Student planning: 3	Problem solving skills: 3
Use of resources: 3	Accomplishment of purpose: 2

Additional comments:

Francisco did a lot of research on whales, using various sources of information. He drew pictures and learned to work with a camera in order to prepare the slides. Unfortunately, the project was not completed because of lack of time, so he never managed to exhibit his work as a whole. He did show a lot of interest and ability in the preparation.

Student Product Assessment (Example #2)

Student name: Rafael Garcia Grade: 5 School: Burns
Teacher: Dowd Date: 6/82
Product title and/or brief description: Photography - development and photographic skills (How to take photos)
Number of weeks student worked on product: 2
Product rating by teacher: (3 = better than average, 2 = average, 1 = below average)

Student planning: 3 Problem solving skills: 2
Use of resources: 3 Accomplishment of purpose: 3

Additional comments:

Student Product Assessment (Example #3)

Student name: Yolanda Gaston Grade: 5 School: Burns
Teacher: Perez Date: 6/82
Product title and/or brief description: House designed and built by student
Number of weeks student worked on product: 2
Product ratings by teachers: (3 = better than average, 2 = average, 1 = below average)

Student planning: 3 Problem solving skills: 3
Use of resources: 2 Accomplishment of purpose: 3

Additional comments:

Student Product Assessment (Example #4)

Student name: Edgardo Lugo Grade: 6 School: Barnard Brown
Teacher: Gordenstein Date:
Product title and/or brief description: Study of planets and clay model
Number of weeks student worked on product: 10
Product ratings by teacher: (3 = better than average, 2 = average, 1 = below average)

Student planning: 3 Problem solving skills: 3
Use of resources: 3 Accomplishment of purpose: 3

Additional comments:

Edgardo was highly motivated in his study about the planets. He read a tremendous number of books about planets and space and worked independently to build a scale model of the solar system. He showed enthusiasm and accuracy in his final product.

Student Product Assessment (Example #5)

Student name: Michael Williams Grade: 4 School: Burns
Teacher: Borrero Date: 2/82
Product title and/or brief description: A drawing of our planetary system - painted using fluorescent paint
Number of weeks student worked on product: 4
Product rating by teacher: (3 = better than average, 2 = average, 1 = below average)

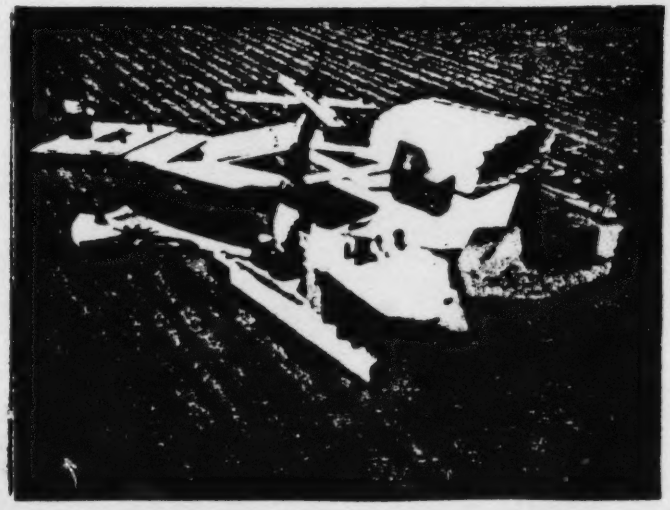
Student planning: 3 Problem solving skills: 3
Use of resource: 3 Accomplishment of purpose: 3

Additional comments:

Results in terms of program objective #9 would indicate students getting opportunity to demonstrate independent work and study skills and staff providing necessary follow-up evaluations of products produced.

Progress of students talented in the arts

The objectives of the art component were to: develop creativity, develop specific art skills, use art for self-expression, and use art to accompany academic work.

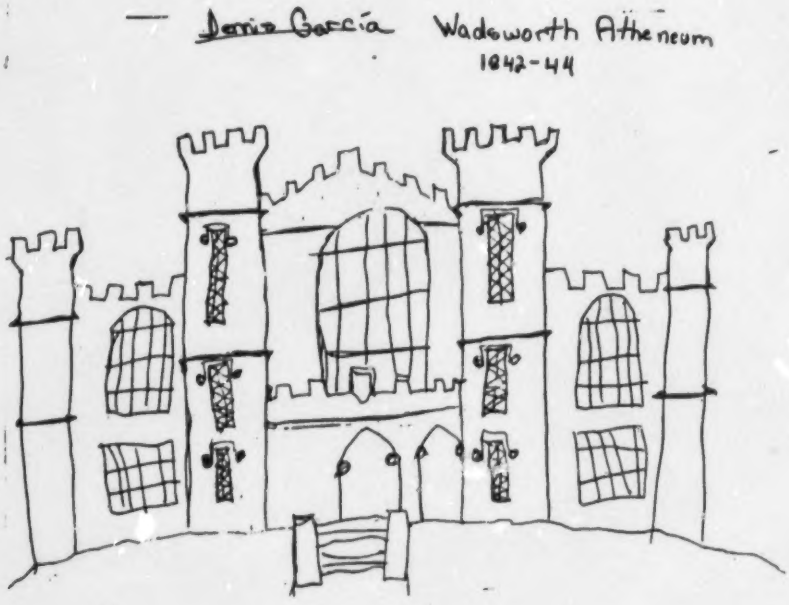


The photograph shown is an example of a 3-dimensional model of a home of the future.

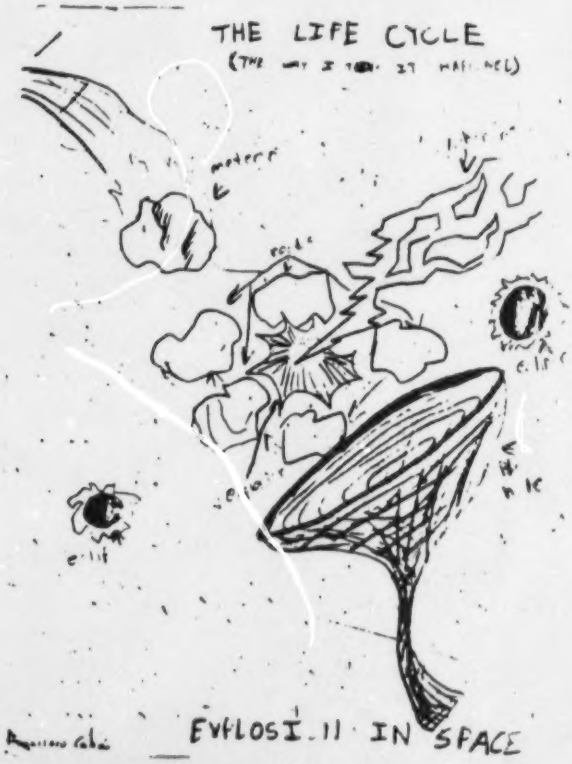
The student participating in the art activities included both the children who were officially identified as artistically talented and the children who were identified as academically gifted. Art activities took place at each school, both during school hours and in the after school program.

At one school, a series of art activities related to the use of wood: cutting, gluing, painting, carving, making wood prints, etc. The emphasis was on the creative use of wood in many ways.

At another school, a local artist was invited to teach the children how to draw the buildings of Hartford (his specialty). The children developed specific art skills such as line drawing and perspective. An example of one of the student's drawings (photo reduction) is shown.



Another type of activity related to the use of art to accompany academic work. As examples, a report about space travel included pictures of rockets and the various planets, as drawn by the student. Another report on evolution included the picture shown (photo reduction).



In order to evaluate the art component, an art evaluation form was developed which was designed for a jury of artists and teachers to evaluate samples of student art work that were collected throughout the year. Due to the complications of centrally collecting the samples, and scheduling the various members of the jury, only a limited number of art samples were officially reviewed. This jury review process will be implemented more extensively in the 1982-83 school year program.

On the basis of the reviews and discussions with the teachers and the artists, the strengths of the art program appear to be: the development of creative expression, exposure to new media, and the use of imagination and imagery. A weakness is the limited presentation of art history and famous artists. This area is planned for expansion during the 1982-83 school year program.

While there is no objective evidence demonstrating that students talented in art improved abilities in their areas of talent (intended outcome of objective 10), observations by staff, artists and the project evaluator recognized this component as one of the major strengths of the 1981-82 program.

Transfer of English proficient students

Students who have successfully learned enough English oral and written skills to qualify for "mainstream gifted programs" are tranferred to those programs as part of the project's compliance with Title VII guidelines. In the case of bilingual gifted students, the transition is necessarily based on higher standards than is the case for regular bilingual students. The reason is that students must meet not only the standards for transition to a mainsteam classroom, but also the standards for acceptance into a gifted and talented program in order for the transition to be considered successful.

In 1981-82, 10 students were able to make the transfer and are now performing successfully in mainstream gifted programs. Considering that in previous years, very few bilingual students were participating in mainstream programs, this is seen as important progress in meeting the needs of these students.

Transfer of English proficient students into mainstream gifted and talented programs then is proceeding as directed according to the intent described in objective 11.

Parent involvement

Parent participation in Encendiendo Una Llama activities was needed on several levels. The project wanted parents involved as much as possible in their children's instructional program and also as a resource to be drawn upon for the special talents and background experiences they could offer. Additionally, there was a need to help parents learn more about characteristics of gifted and talented children. Further, there was a perceived need to expand upon the number and variety of educational opportunities that parents could accomplish right in the home with their children.

During 1981-82, parents did participate in orientation and training sessions during school hours and in the evenings in the school settings. They also were part of the Pupil Appraisal Team which had the responsibility of determining the best ways of serving the needs of individual project students. And the parents did participate in project instructional activities in the schools. The major ways staff communicated with parents in the home during 1981-82 were through informational materials sent home with the students and through project staff visits.

The evaluation planned for this component was the writing of descriptive summaries of project activities involving the parents and the analysis of questionnaires completed by staff based on visits to the home. Evidence from these sources did not become available during 1981-82. With major effort directed towards student identification, programming for the school day and after school programs, and staff training, there just was not enough time for project staff to carry out all of the parent activities originally planned. Much effort, however, was spent in the development of the questionnaire form needed to gather information. And home visits were made, but due to the large number of parents to be visited and the extensive nature of the interview, not all parents were visited during the first year this program objective was undertaken. The undertaking as staff envision it at this time may always take more than one school year to complete.

Of all the activities in which parents were involved during the 1981-82 school year, the enthusiasm parents showed in working with and helping their gifted children experience more enrichment type activities was most successful according to project staff. The home visits were also viewed as important beginnings.

Summarizing 1981-82 project results in terms of the expectations of objective 12, parents have taken part in project instructional activities, in training and orientation sessions, and they have shown interest in extending educational opportunities for their children in the home. These were the major intents. The only element missing was documentation of the extent of their participation.

Dissemination

Dissemination of information about the program, and of project-developed materials took place throughout the year. There appears to be an increasing interest in the area of bilingual gifted education. Approximately 50 written requests for information were received during the year. In addition, approximately 35 visitors from outside the city came to observe the program. In other dissemination activities, the Project Director presented workshops at the international NABE conference in Detroit, at Hartford's annual bilingual education conference, and at the University of Connecticut's summer institute for teachers of the gifted and talented.

Summary of Results and Conclusions

Hartford's program for gifted and talented students, Encendiendo Una Llama, was in its third year of operation in 1981-82. A total of 173 grade 3-6 students from Ann Street Bilingual School, Barnard Brown, Burns, Kinsella and St. Peter participated. There was a school day program in which students were scheduled into a resource room in small groups. There was also an afterschool program for students from 2:30 to 4 p.m. Monday through Thursday. Primary aims during these two program times were the development of English and Spanish language skills, higher level thinking skills, and creativity. A third component of the program emphasized ways classroom teachers could provide acceleration (especially in reading and writing) and enrichment for the gifted and talented students right in the regular classroom. One other element of the 1981-82 program was staff meetings every Friday during afterschool hours to plan, develop curriculum, and coordinate program offerings.

Evaluation results of the 1981-82 program showed:

- A project identification process that was 91% accurate in selecting students for the program.
- Project staff training that was provided as planned, but less success with voluntary afterschool inservice training for classroom teachers.
- All but two project staff persons incorporating specified instructional strategies of language development, enrichment activities, and provisions for independent projects in their program offerings. Only two newly hired staff persons had only partially met the standard set for this objective by yearend.
- Progress in the writing of program curriculum units by project staff.
- Improved national percentile standings for participants across grade levels in English reading and in math administered in the English language.
- Progress in Spanish reading and math administered in Spanish about

commensurate to national norm group growth (maintaining percentile standings generally instead of showing increases).

- Statistically significant gains in oral English and Spanish language for grade 3 students with students at the remaining grade levels scoring too near the ceiling of an on-level test for a determination to be made of their maximum attainment in these skill areas.

- St. Peter project students across grade levels generally progressing in reading and math at the same rate as national norm group students.

- Students getting opportunities to demonstrate independent work and study skills and staff providing the necessary follow-up evaluations of student products.

- Recognition of an excellent art offering by project staff, artists, and the project evaluator.

- Evidence that 10 students transferred to mainstream gifted programs were performing successfully in their new settings.

- An excellent beginning made in involving parents in project instructional activities both in the schools and at home.

- Increased interest in the progress of Hartford's program for bilingual gifted and talented students as shown by approximately 50 written requests for information with on-site visitations by 35 interested persons during the 1981-82 school year.

The evidence of successes far exceeded the intents of the project that could not be accomplished during the 1981-82 school year. Hard evidence of student progress in reading, math, and oral language skills was unusually good in light of the fact that higher achieving students more often regress in achievement in successive test performances and score at the ceiling of test instruments than do average or below average students.

Recommendations

Recommendations based on the findings of this evaluation are as follows:

1. An assessment needs to start early in the school year to identify steps taken by classroom teachers to enrich and accelerate the learnings of gifted students in their regular classrooms.

2. Project staff should seek other means besides afterschool inservice time to help classroom teachers: become aware of and obtain advanced instructional materials, provide opportunities for students to proceed through materials at an accelerated rate, and encourage students to take on independent projects to explore areas of their interest.

3. More attention needs to be directed towards helping project staff develop: teaching units correlated with program goals for students, in-depth skills in organizing and writing curriculum units for students, and refined teaching techniques that elicit the higher level thinking skills and more creative expression of students in their day to day program.

4. Develop evaluation techniques that assess the progress of students in art and in independent work and study skills more than several times over the course of the school year as well as at yearend so that a more adequate assessment in greater variety can be accomplished.

5. Complete the study of reading and math test score analyses for Hispanic students in Hartford regular classrooms so that a determination can be made of the possibilities of using these results to compare with those of project students in an effort to increase the strength of project evaluation findings.

6. Increase the role of the parent coordinator to include bringing parents into the school setting on a regular basis to discuss giftedness, student talents, what's happening in school programs for their children, and how they can encourage their children in the home and community to enhance their abilities. Also, the parent coordinator could take on much of the responsibility of visiting homes to survey ways parents are nurturing their children's special talents and abilities.